# EXCAVATIONS AT QUOYGREW (ORKNEY, SCOTLAND) AND THE GROWTH OF THE MEDIAEVAL FISH TRADE

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The intensive exploitation of marine fishes in Europe is not a new phenomenon. Historical records of large scale fishing and associated long-range trade, particularly of cod and herring, are extant from the twelfth and thirteenth centuries (Holm *et al.* 1996; Starkey *et al.* 2000). It is left to archaeology, however, to establish the earlier origin and growth of these practices. The relevant evidence takes the form of excavated settlements (of fishers and fish consumers), zooarchaeological analysis of fish bones, and isotopic analysis of human bone to reveal the dietary role of marine resources (e.g. Heinrich, 1983; Enghoff, 1996; Barrett, 1997; Barrett *et al.*, 2000; Ervynck *et al.*, 2001). Recent work of this kind in Britain has considered both producers and consumers. This lecture will focus on the former, using the excavation of a Viking Age and mediaeval rural settlement at Quoygrew in Orkney, northern Scotland, as a case study. It will also, however, attempt to set this work within its regional and European context.

The abandoned settlement site now known as Quoygrew is located on the north side of Rackwick, a large north-west-facing bay in a township of the same name in Westray, Orkney (Figs 1 and 2). Today, the visible remains include the ruins of a croft (comprising a dwelling, outbuildings, a yard and an enclosed garden) which was abandoned in the 1930s. These relatively recent structures overlie an irregular farm mound composed of kitchen midden c.2m in elevation and c.50m in diameter (Areas G1 and G2). They also overlook a second low mound of 'fish midden' on the shore which has a maximum dimension of c.40m and has been sectioned by coastal erosion (Areas A-C and E). In the gently sloping area between the two mounds geophysical survey and excavation have revealed a sequence of mediaeval and post-mediaeval buildings (Areas D and F, see Fig. 3). Ongoing auger survey and soil test pits have also identified an artificially thickened 'plaggen' topsoil, interpreted as an infield associated with the settlement (Simpson *et al.*, forthcoming). Radiocarbon and artefact evidence now indicates that the excavated deposits range in date from the 9th or 10th to the 17th century AD.

The site was chosen for excavation partly in order to:

- clarify the existence and timing of economic changes – a shift from shore based to open water fishing and a corresponding increase in reliance on marine foods – which may mark the beginning of the Viking Age in northern Scotland;
- help understand a further increase in fishing at the Viking Age – mediaeval transition and the related growth of trade in commodities such as dried fish from mediaeval Orkney;
- help reveal the spatial layout, and thus economic organization, of a Norse farmstead and its associated fishing station.

The increasing importance of marine resources in Viking Age and mediaeval Scotland is now widely recognised. It has been observed as an increase in the importance of fishing for large cod and related species at the 9th century Pictish-Viking Age transition (e.g. Barrett *et al.*, 2001) and the appearance of semi-specialised fish middens at the 11th century Viking Age-mediaeval transition (Batey, 1989; Morris *et al.*, 1995; Barrett, 1997; Cerón-Carrasco, 1998; Barrett *et al.*, 1999). However, important questions remain regarding the chronology and character of these developments. They may have been associated with the process of Scandinavian colonization and the introduction of new food ways (Barrett *et al.*, 2001), with the 'commercial

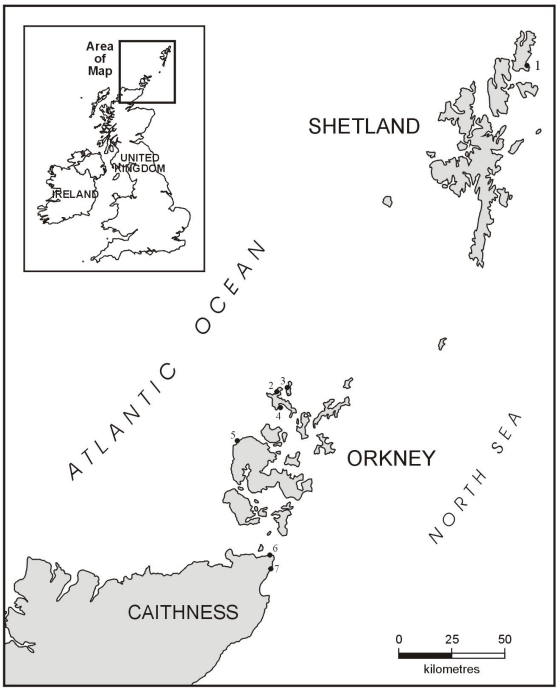


Fig. 1. Location of Quoygrew (2).

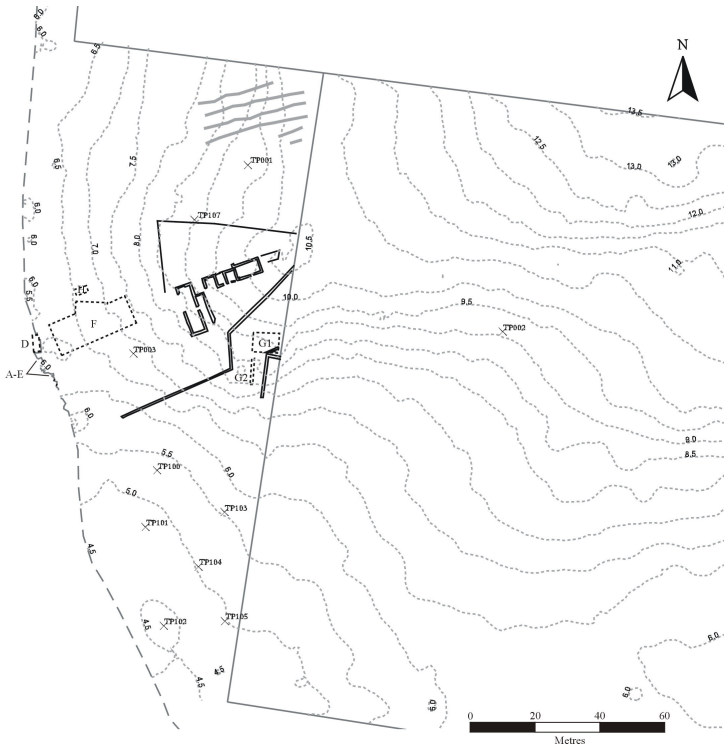


Fig. 2. Quoygrew, showing the excavation areas and test pits. The fish midden is evident as a slight mound at the coast. The farm mound occupies the western terminus of an east-west oriented ridge.

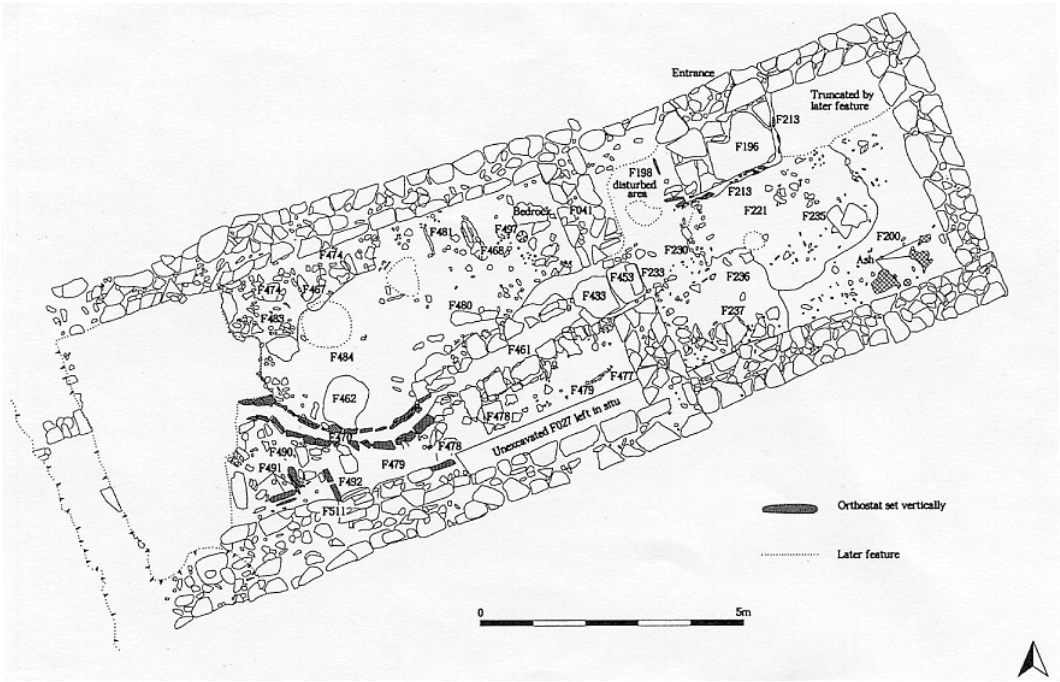


Fig. 3. Area F showing a c.14th century phase of structures 1 (left) and 2 (right).

revolution' of the Middle Ages and the associated growth in long-range trade of dried cod and related species (Bigelow, 1989; Barrett *et al.*, 2000), or with each of these possibilities in a two-stage sequence.

Deciding between these alternatives depends on the chronology and spatial distribution of the relevant archaeological evidence. It is necessary, for example, to disentangle diachronic trends in the economic importance of marine resources from changes in refuse disposal practices. Put simply, did large fish middens like the one at Quoygrew appear in mediaeval Orkney because fish became more important (possibly for trade) or because people began to discard their fish bone in one place and their mammal bone in another? The excavation at Quoygrew was undertaken to answer this question, and to understand the overall organization of a mediaeval fishing settlement in a region likely to have been a net exporter of dried cod and related species. It differs from previous work on the subject in Scotland which has tended to focus on parts of settlements – typically only areas threatened by coastal erosion.

Excavations at Quoygrew are still ongoing, but preliminary results indicate that between the 11th and 12th centuries middens dominated by fish bone (mostly cod, saithe and ling) and shell began to accumulate at both the shoreline and in the farm mound. Broadly contemporary refuse discarded against the north wall of an associated longhouse (Fig. 3) was also predominately fish bone. Earlier (9th-10th century) deposits in the farm mound contained a much higher proportion of mammal bone.

If the fish-rich deposits are considered in greater detail, the coastal midden seems to have been composed predominately of peat ash, fish bone and shell – with frequent soapstone vessel shards. Conversely, the farm mound deposits probably included turf construction materials and animal bedding in addition to peat and turf fuel residues, food waste and soapstone pot shards. The fish midden was thus a more specialised deposit, albeit one which received some

household refuse such as charred cereal grain and chaff (Poaps and Huntley, 2001). Work on bone from the farm mound has just begun (J. Harland, pers comm.). However, preliminary zooarchaeological analysis of the fish midden suggests that dried cod and related taxa suitable for export may have been produced at Quoygrew (Colley, 1983; Barrett *et al.*, 1999). The combination of fish bone, peat ash and soapstone vessel shards in this midden may also imply the rendering of oil, during which fish livers were traditionally boiled in large pots (McGregor, 1880; Cerón-Carrasco, 1994). Fish oil was both exported and used locally for lighting in post-mediaeval Orkney when relevant historical sources first appear (Fenton 1978:527-530). The shell from the coastal midden, much of it limpet, is likely to represent bait based on ethnohistoric analogy (*e.g.* Fenton 1978:542). Unless hooks were baited 'at home', however, the abundance of limpets in the farm mound may imply that shellfish were also eaten in large numbers.

These observations imply two tentative conclusions. Firstly, although large cod and related species may be more common in Viking Age than in earlier sites in northern Scotland, not all 9th-10th century deposits are dominated by fish bone. The relationship between diet and 'Norse' identity in Viking Age Orkney thus deserves more nuanced study (cf. Barrett *et al.*, 2001; Barrett, 2003). Secondly, there does appear to be a clear increase in fishing activity at the Viking Age-mediaeval transition, beginning in the 11th or 12th century. The appearance of semi-specialised fish middens at this time is unlikely to be a function of changing refuse disposal practices. Mediaeval 'domestic' middens at Quoygrew – in the farm mound and north of the long-house – also exhibit a high proportion of fish bone.

In sum, the occupants of this mediaeval rural settlement were intensifying their use of the sea starting in the 11th or 12th centuries. There is also some evidence to suggest that this activity was intended for export in addition to local consumption. Regardless of whether or not this hypothesis can be confirmed, it is clearly significant that developments at Quoygrew, and other fish midden sites in northern Scotland (*e.g.* Barrett, 1997; Cerón-Carrasco; 1998), were contemporary with a significant increase in marine fish consumption in the inland towns of England and Europe (Enghoff, 2000; Barrett and Locker, 2002). Taken together, this 'fish event horizon' appears to mark the origin of intensive exploitation of the sea in mediaeval Europe.

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